

OXYGEN CONCENTRATOR
MOC-F

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MANUAL BOOK



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Thank you for your support. This manual describes the notices, operating steps, basic functions, technical parameters, basic troubleshooting, return repair instructions and other content, so that you will be familiar with the product and operate it properly. To ensure the effective use of this machine, please read this manual carefully. Before you operate the machine, please make sure that you have read and understand the basic operation of this product, Please pay special attention to "IMPORTANT PROTECTION"

For Users

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IMPORTANT SAFEGUARDS



DANGER (If broke the regular operation, may arise serious injur or death.)

The measure to decrease burn, electric shock, fire or human injury risk. Avoid using the product when take bath. If needed, Please follow the doctor's instructions, and the oxygen device must be used in another room 2.5 meters away from the bathroom. It is recommended that the nasal oxygen cylinder be less than 11 meters deep and kept clean.

Do not place or store in a place where it can easily fall into water or other liquids

- ❖ Oxygen causes rapid combustion. Do not use within 5 feet (1.6 m) of heat, igniting objects or open sources of ignition.
- ❖ Do not smoke while your oxygen concentrator is operating. or when you are near someone who is on oxygen therapy
- ❖ Improper use of the power line and plug, may cause fire or other dangerous electric shock, catch fire, do not use the machine with a broken power line.
- ❖ Before cleaning the dust of the unit on the case, must unplug the power plug to prevent electric shock
- ❖ When the machine is working, please do not open the machine case and internal box to prevent damage caused by mechanical touch



WARNING (The following items must be strictly enforced, otherwise it may cause serious consequences.)

- ❖ In order to prevent oxygen failure or power outage, always provide oxygen (such as the urgent need of oxygen and severe patients) need oxygen supply device also configure other backups (Such as oxygen bottle, oxygen bag, etc.)

- ❖ This product cannot be used to sustain any life. It is recommended that patients requiring oxygen therapy should follow the doctor's instructions when selecting this machine for oxygen flow regulation and inhalation time.
- ❖ If discomfort or abnormal reaction occurs, please stop using this product immediately, and contact the manufacturer or doctor.
- ❖ Severely ill patients require additional configuration equipment in the use of the product, or require additional medical coordination. Please consult a doctor before use. If you have any adverse reactions, please consult a doctor immediately.
- ❖ All products when used at an altitude of more than 2000 meters, the maximum recommended flow in the rated oxygen concentrator, the output purity will be less than 90%.
- ❖ Do not allow multiple people to use the same set of nasal oxygen hoses or oxygen masks, to avoid cross-infection caused by viruses or bacteria between users.
- ❖ We must use a humidifier bottle according to the required specifications. Do not replace it arbitrarily, otherwise it may cause discomfort or danger when breathing oxygen.
- ❖ The nasal oxygen hose should not be placed under the converter or pillow when using the unit, and it should not sit on the pressurized oxygen delivery tube to ensure successful use and efficiency.
- ❖ When no one is using, it is recommended to turn off the power switch, and turn off the plug to avoid burning.
- ❖ When using this product, pay attention to whether the power line is too long to block other roads, it is recommended to use it near a power outlet.
- ❖ This product can not be equipped with the specified non-humidifier bottle or dosing accessory, so as not to affect product performance



CAUTIONS (Notice to the following content to avoid breaking t the machine)

- ❖ Do not open the machine case and the inner box of the unit to perform maintenance. If the user encounters some problems, or finds an abnormal alarm, do not carry out repairs, must immediately contact the distributor or manufacturer.
- ❖ The product should be placed in a clean and free from dust, corrosive and toxic environment. Do not use this product under environmental conditions with strong magnetic fields.
- ❖ The machine air inlet should be located in a well-ventilated place and the air source inlet should be located in a place with minimal pollutants (including/pollutants refers to: combustion gases, exhaust systems, air vents and other anesthetic vacuum exhaust holes, etc.)
- ❖ Please connect to a separate AC outlet (Wall mounted) when using this product, do not connect to a lined socket. Do not use with other electrical equipment at the same time using the power supply socket.
- ❖ This machine is strictly prohibited from contact with oil and grease, such as the need to connect to other pipes, valves, connectors, the use of this product, the connection set before installation must be cleaned to ensure clean and no grease (grease) category. In the connection process, pay attention to keep all parts clean, the whole machine connection is strictly forbidden to touch flammable oily liquid.
- ❖ To ensure efficient flow of exhaust gases at the bottom when using the machine. The back is not against the wall, at least 30 cm from the wall, otherwise it will cause machine damage due to overheating.
- ❖ The machine should not be frequently opened and closed and turned off just before starting with an interval of not less than 5 minutes, so as not to

affect the service life of the compressor, the manufacturer recommends each use of preferably 30 minutes.

- ❖ This machine is for medical oxygen supply only. Purity will reach up to 90% or higher when in the rated output stream.
 - ❖ The rotary flow control knob cannot be forced too hard, or it is easy to damage the spool. When the flow control knob is set to the highest level, but the flow indicator is zero, turn off the power and then check for faults.
 - ❖ When receiving the product for operation and testing, cut the bond at the bottom of the machine, otherwise it will cause damage to the machine.



NOTICE (You should pay special attention to the following information.)

- ❖ Purity will reach 90% or more than 90% after 10 minutes of running time.
- ❖ Nasal oxygen hose and oxygen mask need to be cleaned, sterilized if the user wants to reuse.
- ❖ Oxygen machine parts, humidifier bottles need to be cleaned every 2 to 3 days and air intake filter cotton needs to be cleaned every 100 hours. The air filter is recommended to be replaced after 1000 hours of machine use. As the product is used in a larger dusty or soot environment, the above parts, please reduce the cleaning or replacement time. To ensure effective use, early replacement of spare parts is proposed.
- ❖ The use of water can be used in the humidifier bottle must be distilled water or cold water, do not directly use untreated tap water. The water bottle should be cleaned every 2~3 days during summer, recommended daily replacement, if the product does not want to be used in a few days, please throw away all the water and dry the bottle to dry.

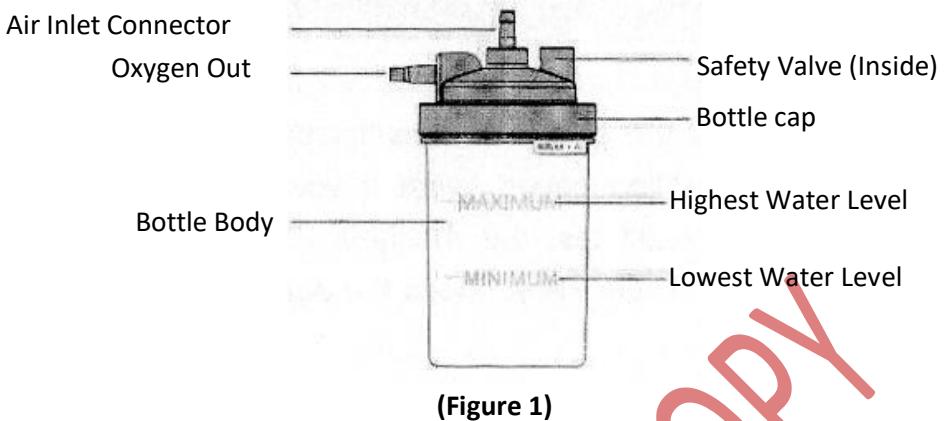
- ❖ Choose a nasal oxygen hose and oxygen mask of the same specification as the one equipped. If replacing a different one, check with a professional or the manufacturer first.
- ❖ Do not throw away the humidifier bottle, nasal oxygen tube, and mask anywhere. The nearest sewage disposal mechanism is the best option.
- ❖ Please select a suitable humidifier bottle, rotate and install it on the machine as needed. Do not use if the installation is not tight. (See humidifier bottle connection indicator diagram).
- ❖ When using a humidifier bottle, pay attention to adding water according to the highest and lowest water levels marked on the bottle body.
- ❖ When this machine is disposed of, please contact your local distributor or manufacturer.
- ❖ Please refer to the DESCRIPTION OF THE USE OF RELATED SYMBOLS to understand the machine, packaging symbols.
- ❖ Please refer to "CHECK PACKAGING AND PACKING LIST" to check the equipped components after receiving the goods and before use and then operate them as "PRODUCT OPERATION PROCEDURES".

DESCRIPTION OF USE OF RELATED SYMBOLS

PRODUCT OPERATING PROCEDURE

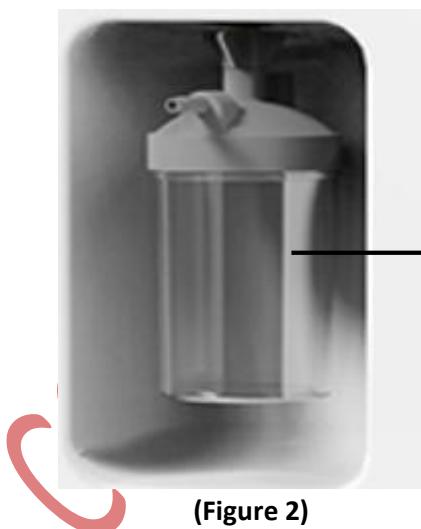
1. Ties at the bottom of the machine must be cut before use. The back of the Concentrator should be at least 30 cm away from the wall, and located in a well-ventilated space without sundries at the bottom to maintain smooth air ventilation and regular heat dissipation.
2. Connect the supplied humidifier bottle and assemble as shown below.

O	Off (All Power Supply)	I	On (All Power Supply)
	Follow Instructions		No Open Flame
	No Smoking		Production date
	Safeguard		Serial number
	Cautions		Up Direction
	Class II equipment		Avoid the rain and Keep dry
	Type BF Applied part		Fragile Handle with care
220V ~	AC 220V		Forbidden to sit
	Non-ionizing Electromagnetic Radiation		
	Waste Electrical and Electronic Equipment Directive 2002/96/EC (WEEE Directive) after the validity period of 3 years has passed, the machine must be treated according to local laws or regulatory requirements. To avoid user interference and pollute the environment.		



(Figure 1)

- a. Pour distilled water into the bottle according to the specified level. Put the bottle cap on. (see Figure 1).



(Figure 2)

- b. Attach the humidifier bottle to the oxygen outlet by turning it counterclockwise. Since the humidifier bottle is hanging, make sure it is securely attached to the outlet port (see Figure 2).



NOTICE: Best installation place as picture 2

3. Disconnect the AC power cord from the retaining strip, making sure the switch is in the off position. Plug the plug into the indoor outlet.
4. Medical oxygen concentrator with equipment to monitor purity. When the machine is running, the instruction light will be on.
5. Flow adjustment is optional, turn knob counterclockwise to increase flow and vice versa.
6. Connect the oxygen tube to the outlet of the humidifier bottle, and cross the oxygen tube to the user's ear, then oxygen is ready to be taken through the nostril. (See Figure 3).



(Figure 3)

7. When the machine is operating, if the alarm sounds, please check whether the power connection is normal or the external power supply is disconnected.
8. When oxygen is finished, turn off the power switch. Immediately clean the oxygen inhalation tube or oxygen mask. If you don't use it often, please tidy up the power plug, AC power line and put the machine in its place.

PRODUCTION INTRODUCTIONS

Oxygen concentrator refers to oxygen concentrator used at home, hospitals or patient care centers to deliver low-flow oxygen therapy. This medical oxygen concentrator product adopts the principle of pressure swing adsorption, pressure and air pressure, after the molecular sieve of nitrogen and oxygen molecules in the air separation, oxygen retention, nitrogen

release. When the power is turned on at room temperature, the oxygen in the air can be separated from the air to meet medical standards.

STRUCTURE

This product consists of a machine body, flowmeter, humidifier bottle, nasal oxygen hose or oxygen mask, SPO2 Probe, Nose Hose and Mouthpiece.

SCOPE OF APPLICATION

This equipment is mainly suitable for medical oxygen preparation.

CONTRAINdications

Non

ENVIRONMENT REQUIREMENTS

1. Ambient Temperature : 18 °C - 30 °C ;
2. Relative Humidity : 10% - 85% RH;
3. Atmospheric Pressure: 700 hPa – 1060 hPa;
4. No corrosive gas and strong magnetic field in the surrounding environment

TRANSPORTATION AND STORAGE CONDITIONS

1. Environmental Temperature Range : -10 °C ~ +55 °C ;
2. Relative Humidity Range : -10 °C ~ +55 °C;
3. Atmospheric Pressure Range : 500 hPa – 1060 hPa.



Notice: When the storage temperature is below 5°C, the machine should be placed under normal temperature environment for more than four hours before using it.

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ADDITIONAL REMAKS

Classification of protection against electric shock: Class II

Classification according to the degree of protection against electric shock:
Class BF

Classification according to the degree of protection of the liquid into the
machine: IP21 device;

According to the level of safety classification used in combustible
anesthetic mixtures with air or oxygen or Nitrous Oxide anesthetic mixtures
cases: when not using flammable gases and air mixed with oxygen or Nitrous
Oxide or anesthetic mixtures under equipment conditions;

classification according to operation mode: Continuous operation;

No signal output and signal input section;

Usage Voltage: 220VAC, 50Hz;

Working: Working continuously;

With the application of the oxygen release part which is free from the
defibrillation protection effect;

Oxygen Concentrator is for non-permanent installation equipment.

* Altitude: 0 meters to 2000 meters, oxygen purity $\geq 90\%$, 2001 meters to
4000 meters, $\leq 90\%$

TECHNICAL PARAMETERS

Model	MOC-F	
Flow	0.5 LPM – 10 LPM	
Pressure	6–10 Psi (0.04-0.07 Mpa)	
Voltage/Frequency	220V/50Hz	
Power/Frequency	\leq 600 W	
Purity	\geq 90 %	
Noise	\leq 50 dB (A)	
Net Weight (Kg)	27 kg	
Equipment Class/Type	Class II/Type BF	
Operating Conditions	Temperature	18°C – 30°C
	Humidity	10% - 85% RH
	Atmosphere	700 hPa – 1060 hPa
Transportation and Storage Conditions	Temperature	-10 °C ~ +55 °C
	Humidity	\leq 95 %
	Atmosphere	500 hPa – 1060 hPa

CLEANING AND MAINTENANCE INSTRUCTIONS

1. Clean the outside casing: once to twice every month. Please Unplug the power supply, use a damp towel to gently clean the exterior using a small amount of detergent, then dry the towel to dry.
2. Cleaning the humidifier bottle: You can use detergent and hot water to clean the humidifier bottle separately, or with white vinegar and water in the ratio of 1:3 fungicide mixture, 30 minutes in the humidifier bottle after the solution separation, and then dry the bottle.
3. Cleaning the air intake filtering foam: remove the filter cotton then clean with detergent and rinse with clean water. Air dry. If it's not completely dry, don't use it. This is an important step to protect the machine. Recommended twice every month.

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WARRANTY

1. From the purchase date of 1 years for the quality guarantee period, once the product does not operate normally not due to human factors, the factory will provide free service for users to repair or replace spare parts.
2. Do not accept machines damaged due to unauthorized modification or installation of other features

The following conditions do not receive free treatment:

1. The product exceeds the warranty period;
2. Failure to function due to not referring to manual requirements;
3. malfunction, scratch or damage caused by displacement;
4. Perform repairs, decomposition, assembly without being accompanied by professional personnel;
5. Normal breakdown of worn parts and spare parts;
6. Failure and damage caused by natural disasters (e.g fire, flood, earthquake, etc.).

FAULT AND REPAIRING COMPARISON TABLE

! In order to avoid electric shock, please do not open the case. Only authorized personnel.

Attached below the fault and repair comparison table will help you analyze the fault and repair the oxygen machine. If the proposed measures do not help, please use a spare oxygen machine, and notify the oxygen machine manufacturer. Please don't try other fixes

Problem	Possible Cause	Solution
The unit is not operating. The power light is off when the power switch is "on". Alarm sounds	The power cord is not properly plugged into the wall outlet	Check the electrical connection at the outlet. Voltage at 220 V, check the back of the unit.
	No electricity in wall socket	Check your home circuit breaker and reset it if necessary. Use a different outlet if the situation happens again
	Active Oxygen concentrator circuit breaker (Select Models)	Press the concentrator circuit breaker button (if equipped with a circuit breaker) located under the power switch. Use a different outlet to activate if the situation occurs again.
Unit operates in 1 minute; the Power light is on when the Power switch is "on".	Clogged filter filter cotton	Check the air filter cotton. If the filter cotton is dirty, clean it according to the cleaning instructions in the manual
	Clogged drain	Check the disposal area; make sure nothing is blocking the exhaust unit

The alarm goes off.	nasal cannula, catheter, face mask or oxygen cylinder are blocked or damaged	Remove the nasal cannula, catheter, or face mask. If proper flow is restored, clean or replace if necessary. Disconnect the oxygen hose at the oxygen outlet. If proper flow is restored, check that the oxygen cylinder is blocked or bent. Replace if necessary.
The unit is operated the power light is on when the power switch is "on" a low frequency vibration sound is detected	The bond at the bottom of the machine is not broken	Turn off the machine and unplug the power plug then hang the side of the machine, cut the tie and turn it off
Low Oxygen Alarm comes on and sounds	Flow meter is not correct	Make sure the flow meter is set correctly
	Clogged air filter cotton	Check the air filter cotton. If the filter cotton is dirty, clean it by following the cleaning instructions in the manual
	Exhaust/drain clogged	Check the exhaust area: make sure nothing is blocking the exhaust of the unit
Please contact the manufacturer or after sales if it still fails to operate.		

* If there is no specific description, please follow the instructions above.

ELECTROMAGNETIC PROTECTION

Electromagnetic-immune manufacturer's guidelines and statements			
OXYGEN CONCENTRATOR is intended for use in the electromagnetic environment specified below. The customer or user of the OXYGEN CONCENTRATOR should ensure that it is used in such an environment.			
Immunity Test	IEC 60601 test level	Compliance Level	Electromagnetic environment guidance
Conducted RF IEC 61000-4-6	3 Vrms 150 kHz up to 80 MHz	3 V	<p>Portable and mobile RF communication equipment must be used no closer to any part of the OXYGEN CONCENTRATOR including cables, other than the recommended separation distance calculated from the equation applicable to the transmitter frequency.</p> <p>Recommended separation distance</p> $d = \frac{3.5}{[V_1]} \sqrt{P}$ $d = \frac{3.5}{[E_1]} \sqrt{P} \quad \text{80MHz to 800MHz}$

Conducted RF IEC 61000- 4-3	3 V/m 80 MHz to 2.5 GHz	3 V/m	$d = \left[\frac{7}{E_1} \right] \sqrt{P}$ <p>80 MHz to 2.5 GHz Where p is the transmitter's maximum output power rating in watts (W) according to the transmitter manufacturer and d is the recommended separation distance in meters (m).b</p> <p>The field strength of a fixed RF transmitter, as determined by an electromagnetic site survey, must be less than the compliance level in each frequency range. b</p> <p>Interference may occur in the vicinity of equipment marked with the following symbols:  </p>
<p>NOTE-1 At 80 MHz and 800 MHz, the higher frequency range applies.</p> <p>NOTE-2 These guidelines may not apply in all situations.</p> <p>Electromagnetism is affected by absorption and reflection from structures, objects and people.</p>			
<p>a. Field strengths from fixed transmitters, such as base stations for radio (cellular/wireless) and land mobile radio, amateur radio, AM and FM radio broadcasts, and TV broadcasts cannot be predicted with theoretical accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be</p>			

- considered. If the measured field strength at the location where the OXYGEN CONCENTRATOR is used exceeds the applicable RF compliance level above, the OXYGEN CONCENTRATOR must be observed to verify normal operation. If abnormal performance is observed, additional measures may be required, such as reorientation or relocation of the OXYGEN CONCENTRATOR.
- b. In the frequency range 150 kHz to 80 MHz, the field strength must be less than 3 V/m.

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ENVIRONMENT PROTECTION

1. Waste and residue treatment

Do not throw away the Nasal Cannula, moisturizing bottle and other components, can take it to the nearest professional medical center.

2. When the machine is disposed of, please contact your local supplier or manufacturer.
3. Disposal of waste and residue must be in accordance with relevant state laws and regulations.

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